PINE & FLYNN DEVELOPMENT
COA LEVEL II

ARCHITECT

JRMA DESIGN STUDIO
175 SUMMIT CIRCLE
SHELBURNE VERMONT
802 985 9363

WWW.JRMADESIGNSTUDIO.COM

CIVIL ENGINEERING

SUMMIT ENGINEERING
1233 Shelburne Road
South Burlington, Vermont

658 - 5588

STRUCTURAL ENGINEERING

j.e BAKER ENGINEERING, PC
7 Cedar Glen North
South Burlington

318 - 1080

GENERAL CONTRACTOR

WRIGHT AND MORRISSEY, INC
99 Swift Street
South Burlington

863 - 4541

DRAWINGS

REFERENCE

DESIGN OBJECTIVES

CIVIL ENGINEERING

ARCHITECTURE

DRAWINGS		PERMIT STAGE		CONSTRUCTION DRAWINGS	
CONCEPTUAL	☐	SKETCH / DISCRETIONARY	☐	25 % COMPLETE	☐
SCHEMATIC	☐	PRELIMINARY	☐	50 % COMPLETE	☐
DESIGN DEVELOPMENT	■	FINAL	■	75 % ISSUE FOR BID	■
		ACT 250	☐	100 % COMPLETE	☐

PLEASE NOTE:

THIS DESIGN IS FOR **COA-II ONLY**. LOCATION, CONFIGURATION OF BUILDING, HEIGHT OF BUILDING, ROADS, DRIVEWAYS, CURB CUTS / ENTRIES, PARKING SPACES, VEGETATION, ETC. IS SUBJECT TO FURTHER DEVELOPMENT AND DESIGN BY **JRMA DESIGN STUDIO**.

THIS IS **NOT TO BE USED FOR CONSTUCTION**.

PINE & FLYNN DEVELOPMENT | SKETCH PLAN REVIEW

PROJECT NAME |	PINE & FLYNN DEVELOPMENT
PROJECT ADDRESS |	316 – 322 FLYNN AVENUE
TAX PARCEL NUMBER	057-4-066-000
OWNERS SIGNATURE	_____
NAME OF APPLICANT	MICHAEL F. ALVANOS C/O G & C PROPERTIES
MAILING ADDRESS	90 SETH CIRCLE, WILLISTON, VERMONT 05495
TELEPHONE NUMBER	802 343 6789
E – MAIL	MICHAEL @ ALVANOSPMG.COM
LEAD ARCHITECT	WILLIAM JOHN ROONEY | JRMA DESIGN STUDIO
TELEPHONE NUMBER	802 985 9363

DESCRIPTION

The project site is situated along the eastern side of Pine Street and along the northern part of Flynn Avenue at its respective corners. The site is currently occupied by three (3) separate structures. First, a commercial store and deli, a three (3) unit residential building and a garage that houses a recycling center for the store/deli.
The proposed development program includes the demolition of the existing store/deli and the garage that houses the recycling center. A new mixed use structure will be erected on site that will house a ground level commercial, replacing and reintroducing the store and adding new office space to the lower level. Above the commercial 2 levels of residential apartments will provide much needed housing to this area.

NOTEABLE IMPROVEMENTS

ENGLESBY STORMWATER IMPROVEMENTS

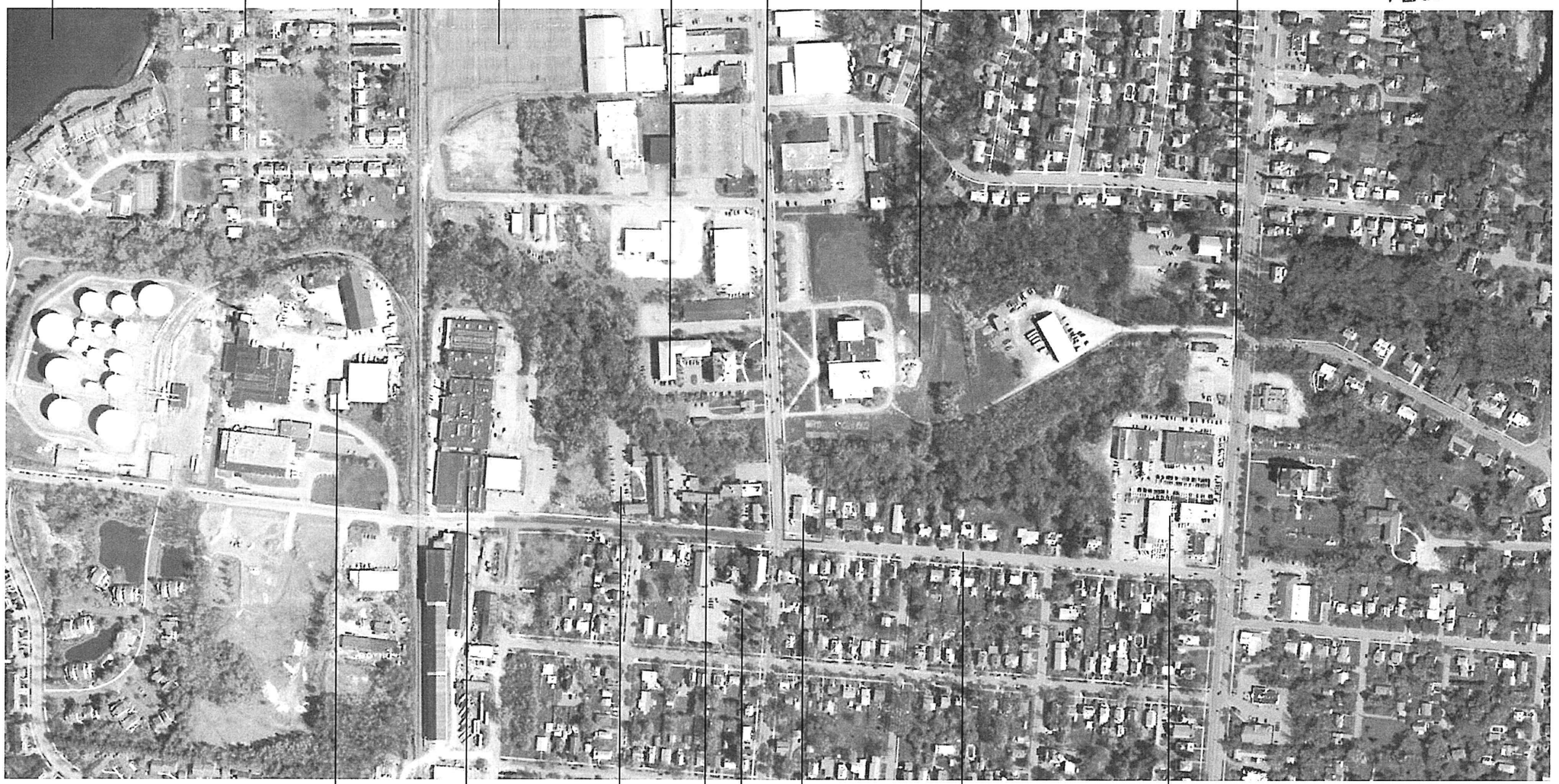
One of the goals of this project is the improvement of the Englesby Brook Storm Water Management system. Improvement on the land will allow all the storm water to be either infiltrated through improved landscaping, or, via an underground retention system that will house and treat all stormwater prior to discharge back into the ecosystem.

ENERGY EFFICENCY THROUGH MIXED-USE

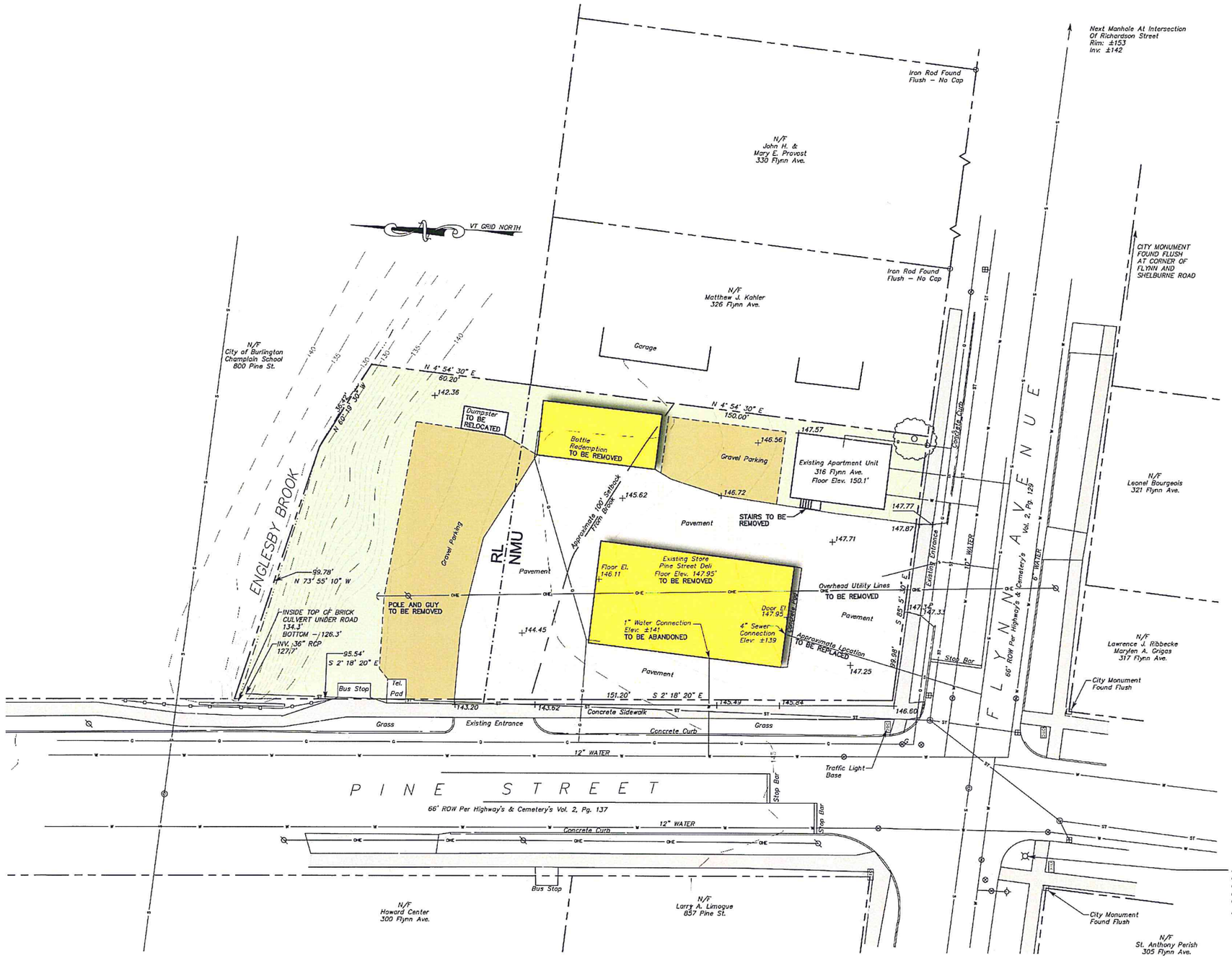
Prior to submitting this project, Michael Alvanos and Eric Hoekstra, spearheaded a zoning change through the Burlington Planning Commission to provide the local residences improved zoning laws that would support mixed-use developments. Mixed-Use Development and infill design are cornerstones to improved energy efficiency.

UPDATED ARCHITECTURAL VENACULAR

The "South-End" of Burlington over the last 20 years has seen increased commercial development. With Dealer.Com, Burton Snowboards and Champlain College offering over 500 jobs, the demand to live close to where one works becomes a valuable asset to keeping these jobs local. The design of the building will adhere to the architectural vernacular created by these local businesses.



Existing Conditions



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Horizontal and Vertical information shown hereon are related to NAD 83(2007) and NAVD 88 datums based upon this Station "ANTHONY" and upon Station "PUMP STA PINE" located on the easterly side of Pine St. opposite Lakeside Ave.

"ANTHONY" Elevation = 111.29' NAVD 88

Notes:

It is noted that no site assessment of hazardous or other waste materials has been made and S.E. takes no responsibility for any materials or conditions that may exist on this site.

The Contractor is to notify Dig-Safe (Tel. 1-800-DIG-SAFE) 48 hours prior to any excavation.

Underground locations shown are drawn from structure to structure or located per City Public Works plans.

All utility services enter this lot through a public right-of-way or recorded easement.

Location Map

Areas			
Total Lot	26,427.9 s.f.	0.61 acre	100%
Paved Area	10,143.7 s.f.	0.23 acre	38.4%
Gravel Parking	4,555.0 s.f.	0.10 acre	17.2%
Building Area	4,741.5 s.f.	0.11 acre	17.9%
Total Impervious	19,440.2 s.f.	0.45 acre	73.6%
Pervious Area	6,987.6 s.f.	0.16 acre	26.4%

LEGEND

- Property/R.O.W. Line
- Proposed Property Line
- OHE — Overhead Utility Line
- G — Gas Line
- W — Water Line
- S — Sanitary Line
- ST — Storm Line
- Utility Pole
- Concrete Monument
- Rebar Found
- Storm Catch Basin
- Gate Valve
- Manhole
- Gas Valve
- Traffic Light Base
- +146.56 Spot Elevation

Reference Plans

1. *"Englesby Farm" plan of the former Flynn Estate property by A.R. Daw, CE dated May, 1899 and recorded in Vol. 120, Pg. 55 of the Burlington City Land Records*
2. *"Plat of Survey – BCCDH Realty, LLC" by Civil Engineering Assoc., Inc. last dated 2/26/07 and recorded in Map Slide 419B of the Burlington City Land Records*
3. *"Property Survey Plat – G&C Properties, LLC" by Summit Engineering, Inc, dated 11/4/10, last revised 7/14/11*

Note: Previous deeds describe the easterly line of this property as being parallel to Pine Street. The referenced 1899 plan shows the easterly line to be parallel with Shelburne Road which coincides with apparent usage.

Owner of Record
G&C Properties, LLC
316 Flynn Ave.
Burlington, Vermont
Tax Map Parcel No. 057-4-066-000
Bk. 1151, Pg. 457
16,420 Sq. Ft. (0.377 Acres)
10,006 SF License From City
Total 26,426 SF (0.474 Acres)

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DEPARTMENT OF PLANNING & ZONING

ARCHITECT

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architecture - master planning - interiors
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175 SUMMIT CIRCLE
SHELBURNE VERMONT

CLIENT

PINE & FLYNN
DEVELOPMENT

LOCATION
316 FLYNN AVE (CORNER OF PINE & FLYNN
BURLINGTON, VERMONT

OWNER
G & C PROPERTIES
BURLINGTON, VERMONT
TEL: 802 343 6789

CONTRACTOR

CIVIL ENGINEER

SUMMIT ENGINEERING, INC
Engineers • Surveyors • Planners • Landscape Architects
1233 Shelburne Road C2
South Burlington, VT 05403
(802) 658-3368

STAMP

Issue	Date	Issue	Date

Project

Drawing Title EXISTING CONDITIONS PLAN

Project No. 8163 Drawn By BEG Date 2/10/15 Scale 1"=20'

Floor(s)

Drawing No.

EC1

G&C Properties LLC
316-322 Flynn Avenue, Burlington, VT
Water and Sanitary Sewer Basis of Design
December 4, 2014

Existing Water/Sewer Design Flow

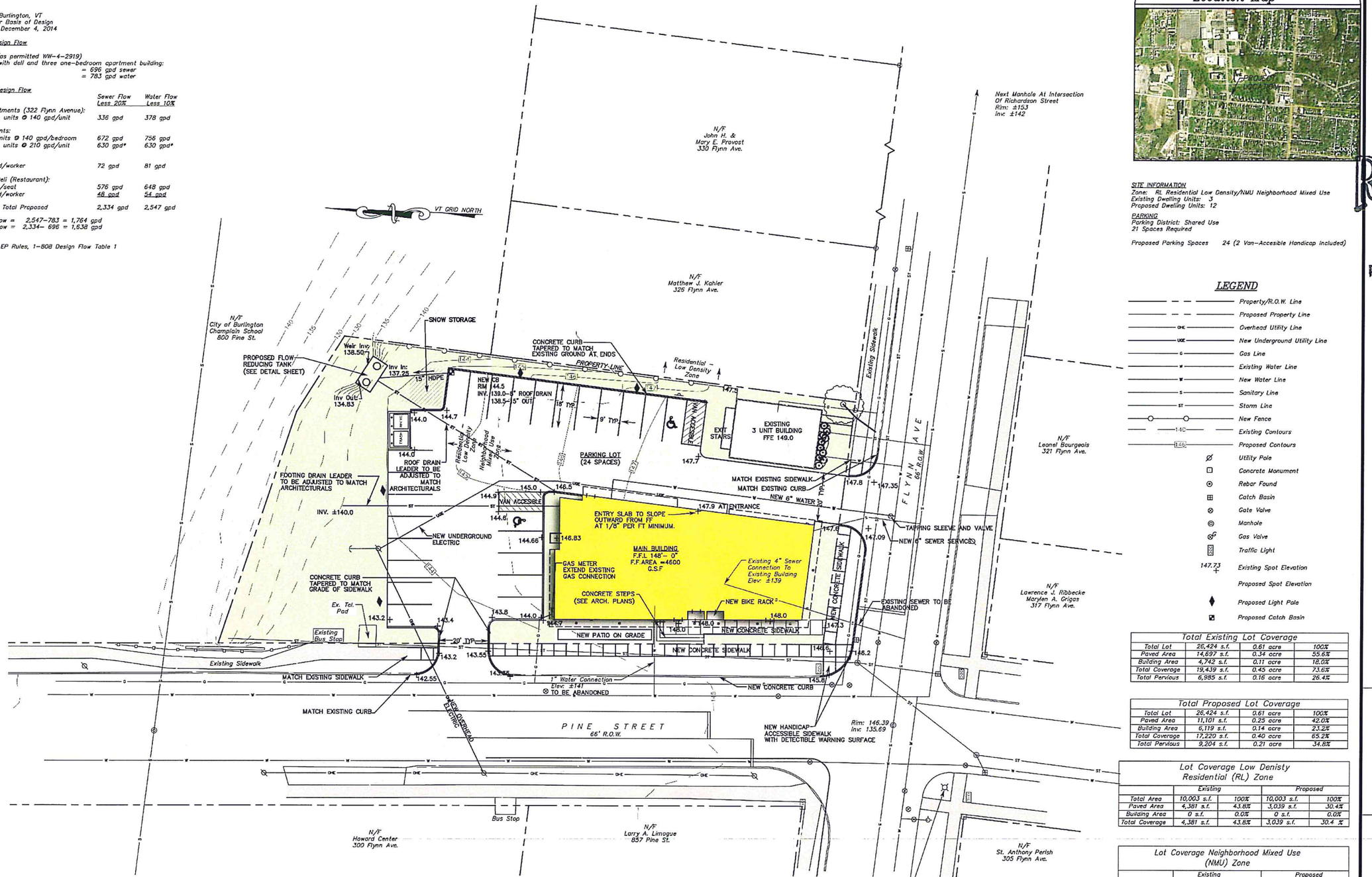
Water and Wastewater: (as permitted WW-4-2919)
Convenience store with deli and three one-bedroom apartment building:
= 696 gpd sewer
= 783 gpd water

Proposed Water/Sewer Design Flow

	Sewer Flow Less 20%	Water Flow Less 10%
Existing Residential Apartments (322 Flynn Avenue):		
Three one-bedroom units @ 140 gpd/unit	336 gpd	378 gpd
New Residential Apartments:		
Six one-bedroom units @ 140 gpd/bedroom	672 gpd	756 gpd
Three two-bedroom units @ 210 gpd/unit	630 gpd*	630 gpd*
Office Space:		
6 Workers @ 15 gpd/worker	72 gpd	81 gpd
Convenience Store and Deli (Restaurant):		
24 seats @ 30 gpd/seat	576 gpd	648 gpd
4 workers @ 15 gpd/worker	48 gpd	54 gpd
Total Proposed	2,334 gpd	2,547 gpd

Increase in water flow = 2,547-783 = 1,764 gpd
Increase in sewer flow = 2,334- 696 = 1,638 gpd

*No reduction taken per EP Rules, 1-808 Design Flow Table 1



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Q into Englesby Brook Before and After Construction		
Storm	Q-Pre	Q-Post
WQ Storm	0.30 c.f.s.	0.37 c.f.s.
Chit. 1yr-24hr	1.37 c.f.s.	1.26 c.f.s.
Chit. 2yr-24hr	1.56 c.f.s.	1.42 c.f.s.
Chit. 10yr-24hr	2.44 c.f.s.	2.11 c.f.s.
Chit. 25yr-24hr	3.32 c.f.s..	2.83 c.f.s..
Chit. 100yr-24hr	4.39 c.f.s.	3.94 c.f.s.

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16,420 Sq. Ft. (0.377 Acres)
10,006 SF License From City
Total 26,426 SF (0.474 Acres)

Location Map

SITE INFORMATION
Zone: RL Residential Low Density/NMU Neighborhood Mixed Use
Existing Dwelling Units: 3
Proposed Dwelling Units: 12

PARKING
Parking District: Shared Use
21 Spaces Required

Proposed Parking Spaces 24 (2 Van-Accesible Handicap Included)

LEGEND

- Property/R.O.W. Line
- Proposed Property Line
- OHE Overhead Utility Line
- UGE New Underground Utility Line
- G Gas Line
- W Existing Water Line
- W New Water Line
- S Sanitary Line
- ST Storm Line
- New Fence
- 140 Existing Contours
- 138 Proposed Contours
- Utility Pole
- Concrete Monument
- Rebar Found
- Catch Basin
- Gate Valve
- Manhole
- Gas Valve
- Traffic Light
- 147.73 Existing Spot Elevation
- Proposed Spot Elevation
- Proposed Light Pole
- Proposed Catch Basin

Total Existing Lot Coverage			
Total Lot	26,424 s.f.	0.61 acre	100%
Paved Area	14,697 s.f.	0.34 acre	55.6%
Building Area	4,742 s.f.	0.11 acre	18.0%
Total Coverage	19,439 s.f.	0.45 acre	73.6%
Total Pervious	6,985 s.f.	0.16 acre	26.4%

Total Proposed Lot Coverage			
Total Lot	26,424 s.f.	0.61 acre	100%
Paved Area	11,101 s.f.	0.25 acre	42.0%
Building Area	6,119 s.f.	0.14 acre	23.2%
Total Coverage	17,220 s.f.	0.40 acre	65.2%
Total Pervious	9,204 s.f.	0.21 acre	34.8%

Lot Coverage Low Denisty Residential (RL) Zone				
	Existing		Proposed	
Total Area	10,003 s.f.	100%	10,003 s.f.	100%
Paved Area	4,381 s.f.	43.8%	3,039 s.f.	30.4%
Building Area	0 s.f.	0.0%	0 s.f.	0.0%
Total Coverage	4,381 s.f.	43.8%	3,039 s.f.	30.4 %

Lot Coverage Neighborhood Mixed Use (NMU) Zone				
	Existing		Proposed	
Total Area	16,421 s.f.	100%	16,421 s.f.	100%
Paved Area	10,338 s.f.	63.0%	8,062 s.f.	49.1%
Building Area	4,601 s.f.	28.0%	6,119 s.f.	37.3%
Total Coverage	14,939 s.f.	91.0%	14,181 s.f.	86.4%

Proposed Gross Floor Area 19,180 s.f. FAR = 1.17 (IN NMU ZONE)

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DEPARTMENT OF PLANNING & ZONING

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JRMA DESIGN STUDIO LLP
175 SUMMIT CIRCLE
SHELBURNE VERMONT

CLIENT
PINE & FLYNN
DEVELOPMENT

LOCATION
316 FLYNN AVE (CORNER OF PINE & FLYNN
BURLINGTON, VERMONT

OWNER
G & C PROPERTIES
BURLINGTON, VERMONT
TEL: 802 343 6789

CONTRACTOR

CIVIL ENGINEER
SUMMIT ENGINEERING, INC
Engineers • Surveyors • Planners • Landscape Architects
1233 Shelburne Road C2
South Burlington, VT 05403
(802) 658-3068

STAMP
STATE OF VERMONT DOUGLAS HEWITT NO. 7479 CIVIL LICENSED PROFESSIONAL ENGINEER

Issue	Date	Issue	Date

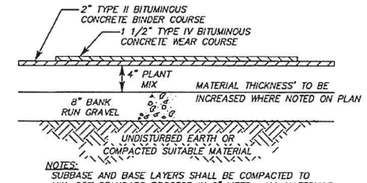
Project

Drawing Title SITE PLAN

Project No. 8163 Drawn By BEG Date 2/10/15 Scale 1"=20'

Floor(s)

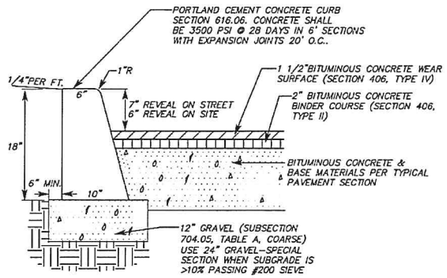
Drawing No. S1



NOTES:
SUBBASE AND BASE LAYERS SHALL BE COMPACTED TO MIN. 95% STANDARD PROCTOR IN 6" LIFTS. ALL MATERIALS SHALL CONFORM TO VT. AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION 2011 ED.

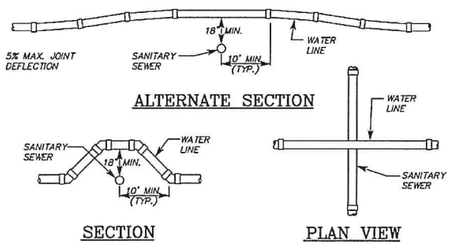
*SECTION TO BE USED WHERE RECLAIM IS NOT ADEQUATE

TYPICAL PAVEMENT SECTION
N.T.S.



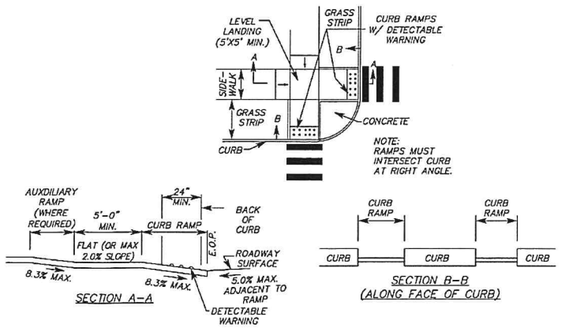
NOTE:
REFERENCED SPECIFICATION SECTIONS SHALL BE IN CONFORMANCE WITH THE VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATION FOR CONSTRUCTION, CURRENT EDITION.

CURB AND PAVEMENT TYPICAL
N.T.S.

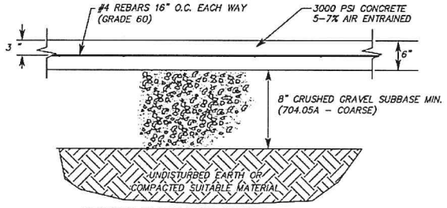


NOTES:
THE CROSSING SHALL BE ARRANGED AS SHOWN SO THAT THE SEWER JOINTS ARE AS FAR AS POSSIBLE AND EQUIDISTANT FROM THE POINT OF INTERSECTION. PROVIDE PIPE FITTING RESTRAINTS AND BLOCKING AS NECESSARY.

WATER/SEWER CROSSING TYPICAL
N.T.S.



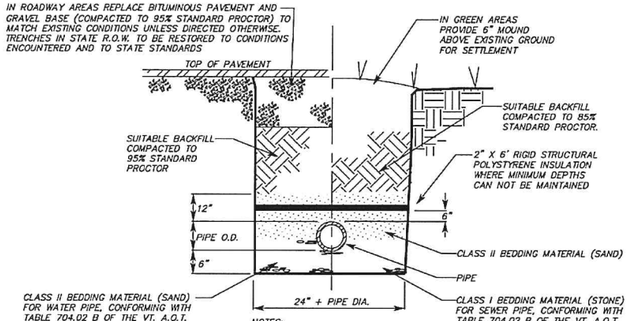
SIDEWALK RAMP DETAIL
N.T.S.



DIMENSIONS OF PADS SHOWN ON PLAN:
6 - 10'x10' DUMPSTER PADS

NOTES:
SUBBASE AND BASE LAYERS SHALL BE COMPACTED TO MIN. 95% PROCTOR IN 6" LIFTS. ALL MATERIALS SHALL CONFORM TO VT. AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION 1990 ED.

TYPICAL DUMPSTER PAD
N.T.S.

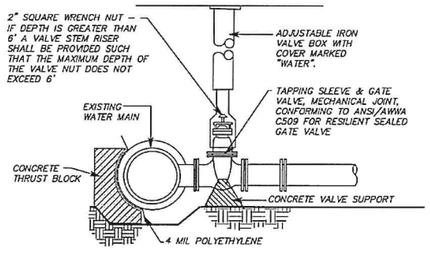


NOTES:
MAINTAIN MIN. 6' COVER FOR ALL WATER PIPE AND SEWER PIPE IN PAVED AREAS. MAINTAIN 4.5' OF COVER FOR SEWER IN GRASSED AREAS.

CLASS II MATERIAL (SAND)
SHALL COMPLY WITH THE FOLLOWING GRADATION REQUIREMENTS:

U.S. SIEVE SIZE	PERCENT PASSING
NO. 4	100
NO. 100	0-30
NO. 200	0-12

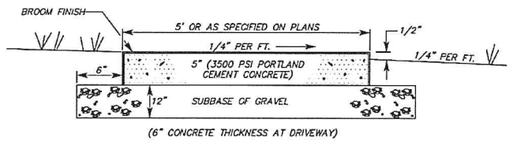
TRENCH TYPICAL
N.T.S.



NOTE: TAPPING SLEEVE SHALL BE OF THE SPLIT SLEEVE DESIGN CONSTRUCTED WITH TWO SOLID HALF-SLEEVES BOLTED TOGETHER. SLEEVES SHALL BE CONSTRUCTED OF CAST IRON OR DUCTILE IRON, SHALL HAVE A WORKING PRESSURE OF AT LEAST OF 150 PSI, AND SHALL HAVE MECHANICAL JOINT ENDS WITH END AND SIDE GASKET SEALS. SLEEVES SHALL BE PROVIDED WITH A 3/4" NPT TEST PLUG. ALL BOLTS AND NUTS FOR MECHANICAL JOINTS AND TAPPING SLEEVES SHALL CONFORM TO ANSI/AWWA C111/A21.11 AND BE CLEAN AND COATED WITH A RUST-RESISTANT LUBRICANT WITH THEIR SURFACES FREE OF OBJECTIONABLE PROTRUSIONS. ALL BOLTS AND NUTS AFTER TIGHTENING SHALL BE BRUSH COATED WITH BITUMASTIC COLD-APPLIED MATERIAL.

TAPPING VALVES SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 PSI. THE INLET FLANGES SHALL BE CLASS 125 CONFORMING TO ANSI B16.1 OF ANSI/AWWA C110/A21.10 AND OUTLET CONNECTION SHALL BE STANDARDIZED MECHANICAL JOINT.

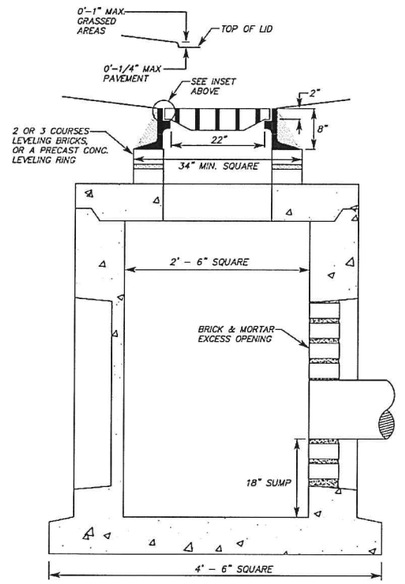
TAPPING SLEEVE AND VALVE
N.T.S.



(6" CONCRETE THICKNESS AT DRIVEWAY)

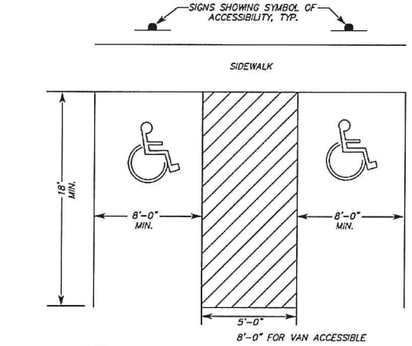
NOTE:
CONSTRUCT EXPANSION & CONTRACTION JOINTS EVERY 20' WITH DUMMY JOINTS EVERY 5'.

SIDEWALK TYPICAL
N.T.S.



NOTES:
CAMP PRECAST CONCRETE PRODUCTS, INC. PRECAST REINFORCED CONCRETE CATCH BASIN, OR EQUAL. H20 LOADING CAPABILITY IS REQUIRED. CONCRETE SHALL BE 4,000 PSI MINIMUM AT 28 DAYS. FRAME & GRATE SHALL BE LEBARON NO. 248-2, OR EQUAL.

TYPICAL CATCH BASIN
N.T.S.



NOTES:
1.) BITUMINOUS CONCRETE RAMP SHALL MEET TOP OF SIDEWALK CURB.
2.) HANDICAP SYMBOL SHALL BE CENTERED IN PARKING STALLS.
3.) HANDICAP RAMP SHALL BE STRIPED AND TEXTURED IN CONFORMANCE WITH VTRANS STD C-3A & C3B
4.) HANDICAP RAMP SLOPE SHALL NOT EXCEED 8.3%

HANDICAP PAVEMENT MARKING DETAIL
N.T.S.

WATER LINE INSTALLATION AND TESTING

1. BEFORE CONSTRUCTION OF ANY UTILITIES OR IMPROVEMENTS, THE CONTRACTOR SHALL NOTIFY THE MUNICIPAL WATER DEPARTMENT IN WRITING, OF THEIR INTENT TO PROCEED AND SHALL ARRANGE FOR A MEETING WITH THE DEPT., THE ENGINEER, AND THE CONTRACTOR TO DISCUSS THE PROJECT.
2. ALL WATER MAINS, FITTINGS, APPURTENANCES, AND OTHER MATERIALS AND CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE AWWA, STATE AND TOWN CODES, STANDARDS, AND REGULATIONS. IN CASE OF CONFLICT BETWEEN THESE CONSTRUCTION DETAILS AND SPECIFICATIONS, AND A CODE OR REGULATION, THE DECISION OF THE VERMONT DEPT. OF HEALTH OR THE MUNICIPAL WATER DEPARTMENT SHALL BE BINDING.
3. CONNECTION TO AN EXISTING WATER MAIN SHALL BE DONE BY OR UNDER THE SUPERVISION OF, AND WITH THE APPROVAL OF THE MUNICIPAL WATER DEPARTMENT. IT IS THE CONTRACTORS RESPONSIBILITY TO SECURE ALL NECESSARY PERMITS AND PERMISSION TO MAKE THE CONNECTION AND TO COORDINATE ALL PARTIES INVOLVED IN THE PROCESS. THE MUNICIPAL WATER DEPARTMENT AND ENGINEER SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF THE INTENDED CONNECTION TIME.
4. ALL WATER MAINS SHALL HAVE AT LEAST A TEN (10) FOOT SEPARATION HORIZONTALLY FROM SANITARY SEWERS.
5. ALL PUBLIC AND PRIVATE WATER MAINS: 1) 4" OR GREATER SHALL BE DUCTILE IRON, MINIMUM CLASS 52, DOUBLE CEMENT LINED, MECHANICAL OR PUSH ON JOINT PIPE. 2) LESS THAN 4" IN DIAMETER SHALL BE TYPE K COPPER.
6. ALL WATER LINE FITTINGS SHALL BE DUCTILE IRON, (AWWA C-110) CEMENT-LINED. WATER LINES LESS THAN 4" IN DIAMETER FITTINGS (OTHER THAN VALVES), SHALL BE BRASS.
7. ALL BURIED GATE VALVES SHALL CONFORM TO AWWA C-500 OR C-509 AND BE 150 LB. IRON BODY, BRONZE MOUNTED RESILIENT WEDGE TYPE. ALL GATE VALVES SHALL HAVE ADJUSTABLE IRON VALVE BOXES EXTENDING TO THE FINISHED GRADE (SEE TYPICAL DETAILS).
8. ALL WATER LINES AND APPURTENANCES SHALL BE PRESSURE AND LEAK TESTED BEFORE BEING PLACED INTO SERVICE, ACCORDING TO AWWA STANDARD C-651. THE TEST PRESSURE SHALL BE 200 PSI (+/- 5PSI), MEASURED AT OR NEAR THE HIGH POINT IN THE PORTION OF THE SYSTEM BEING TESTED, AND THE TEST SHALL BE RUN FOR TWO (2) HOURS. THE MUNICIPAL WATER DEPARTMENT AND THE ENGINEER SHALL BE GIVEN AT LEAST FORTY-EIGHT (48) HOURS NOTICE BEFORE THE TEST IS TO BE CONDUCTED, AND THE MUNICIPAL WATER DEPARTMENT PERSONNEL SHALL WITNESS THE TEST. ALLOWABLE LEAKAGE SHALL BE COMPUTED BY ONE OF THE FOLLOWING FORMULAS, THE CHOICE TO BE MADE BY THE MUNICIPAL WATER DEPARTMENT:
   1) $L = (SxDxP)/133200$ WHERE; L = NUMBER OF GALS. ALLOWED LEAKAGE PER HOUR, S = LENGTH OF PIPE TESTED IN FEET, D = INCHES OF PIPE DIAMETER, P = AVERAGE TEST PRESSURE (PSI GAUGE).
   2) $Q = (NxDxP)/3700$ WHERE; Q = NUMBER OF GALS. ALLOWED LEAKAGE IN TWO (2) HOURS, N = NUMBER OF JOINTS, D = INCHES OF PIPE DIAMETER, P = TEST PRESSURE (PSI).

   THE PERSON(S) CONDUCTING THE TEST(S) SHALL, IN WRITING, CERTIFY THE RESULTS TO THE MUNICIPAL WATER DEPARTMENT.
9. ALL WATER LINES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C-601, OR AS DIRECTED BY THE MUNICIPAL WATER DEPARTMENT BEFORE BEING PUT INTO SERVICE. THE CONTRACTOR SHALL INSTALL A 1" DIAMETER TAP IN THE WATER MAIN FOR CHLORINE INJECTION. THE TAP SHALL BE LOCATED AS DIRECTED BY THE MUNICIPAL WATER DEPARTMENT. DISINFECTION SHALL BE ACCOMPLISHED BY INTRODUCING A CONCENTRATION OF 50 PARTS PER MILLION (PPM) OF AVAILABLE CHLORINE INTO A RECENTLY FLUSHED MAIN. THE DISINFECTING SOLUTION, AFTER REMAINING IN THE WATER MAIN FOR 24 HOURS, SHALL HAVE A CONCENTRATION OF AT LEAST 25 PPM OF CHLORINE. THE PERSON(S) RESPONSIBLE FOR DISINFECTION SHALL REPORT IN WRITING, TO THE MUNICIPAL WATER DEPARTMENT AND VERMONT DEPT. OF HEALTH, THAT THIS DISINFECTION PROCEDURE WAS FOLLOWED AND THE REQUIRED MINIMUM RESULTS WERE OBTAINED. ACTUAL SAMPLING SHALL BE PERFORMED BY THE MUNICIPAL WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAMPLING AND ANALYSIS COSTS.

SEWER CONSTRUCTION AND TESTING NOTES

1. All sewer pipe shall be PVC SDR 35 gravity sewer pipe manufactured in conformance with ASTM D 3034 (4" to 15") and installed in conformance with ASTM recommended practice D2321. Joints, fittings, and accessories shall also conform to the appropriate specifications for PVC pipe size.
2. Install sewer pipe in conformance with the engineering plans and specifications and manufacturer's recommendations. PVC gravity sewer pipe shall be furnished in the longest nominal lengths available from the manufacturer. The jointing procedure shall conform with the manufacturer's recommendations as outlined. Gaskets used in joining PVC sewer pipe shall conform to the requirements of ASTM F477.
3. Pipe shall be laid accurately to line and grade. Bedding in earth shall be a minimum of 6" below the outside of the pipe barrel. Bedding shall extend up to the spring line. Material around and to a height of 1' above the pipe shall be sand backfilled. Bedding and sand cushion shall be compacted by mechanical tamping in 1 foot lifts.
4. Pipe shall be laid with the spigot ends pointing in the direction of flow, and on a dry bedding. Completed pipelines shall be free from offsets or deviations from line and grade when examined with lights or mirrors. Visible leaks, broken pipes, etc., shall be repaired. Pipe shall be plugged with a water tight plug at night or when work is suspended. Sewers shall not be used to carry groundwater from the trench. The Contractor shall clean all soil deposits and other debris from sewers at the completion of the work.
5. A tee or wye branch shall be provided for each new or existing service, together with 4 inch SDR 35 PVC line sufficient to connect to the building services. Connections shall be made by the Contractor. All adapters, caulking and necessary connectors shall be provided to make satisfactory and leak-proof connections.
6. Any service connections shall be 4 inch SDR 35 PVC and shall be constructed in a location to be determined by the Engineer. The service connection shall be 6' below existing grade unless otherwise indicated on the plans or as directed by the Engineer. The end shall be located by two intersecting ties by the Engineer before being backfilled and shall be marked with a 2" by 4" board coated with preservative extending from the connection invert to 6" below existing grade and with metal tape or a metal marker suitable for detection with a metal detector.
7. Manholes shall be constructed at the locations, to the elevations, and in accordance with notes and details shown on the drawings as well as the standard details.
   A. Pre-cast bases shall be placed on a 6" layer of compacted bedding material. The excavation shall be properly dewatered while placing bedding material and setting the base or pouring concrete. Water stops shall be used at the horizontal joint of poured-in-place manholes.
   B. Inlet and outlet stubs shall be connected and sealed in accordance with the manufacturer's recommended procedure, and shown on the typical sections, or cast integrally with the poured base.
   C. Barrel sections and cones of the appropriate combination of heights shall then be placed, using manufacturer's recommended procedures for sealing the horizontal joints, and as shown on the typical sections.
   D. A leakage test shall be made on all sanitary manholes prior to building manhole invert.
   E. The frame and cover shall be placed on the top to prevent accidental entry of unauthorized persons, children, animals, etc., until the Contractor is ready to make final adjustment to grade.
   F. Manholes shall be backfilled evenly in layers with suitable backfil material and compacted to achieve 95% maximum density.
   G. Connections to existing manholes shall be made so as not to damage the structure. The openings shall be mortared full and watertight after the new pipe is installed. The inverts shall be modified as directed to accommodate flow from the new pipe.

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Issue	Date	Issue	Date

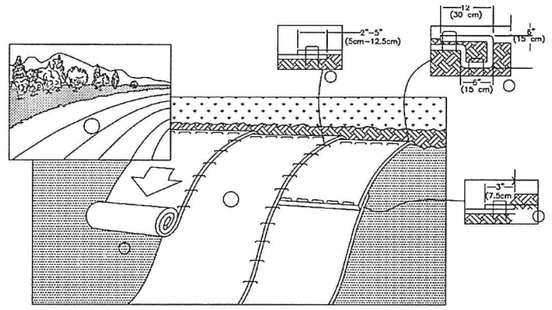
Project

Drawing Title: SITE DETAILS

Project No. 8163 Drawn By BEG Date 2/10/15 Scale N.T.S.

Floor(s)

Drawing No.
D1



1. *PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCT (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.*
2. *BEGIN AT THE TOP OF SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF RECP's*
3. *ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.*
4. *THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5CM – 12.5CM) OVERLAP DEPENDING ON RECP's TYPE.*
5. *CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ENTIRE RECP's EDITH.*

NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

EROSION CONTROL MATTING - SLOPE INSTALLATION

N.T.S.

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EROSION CONTROL *Products Guaranteed* SOLUTIONS
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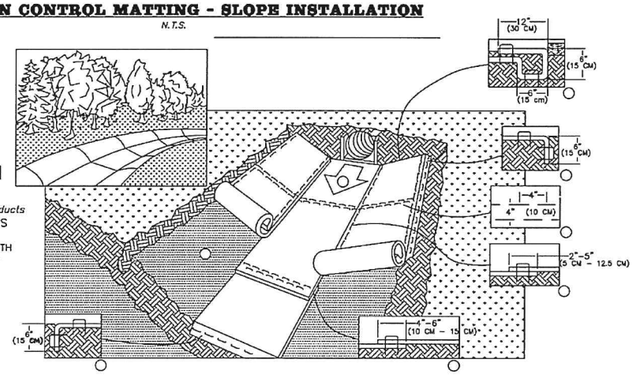

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE RECP's.
3. ROLL CENTER RECP's IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM ®, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP's END OVER END (SHINGLE STYLE) WITH A 4" – 6" (10 CM –15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE RECP's.
5. FULL LENGTH EDGE OF RECP's AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP's MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (5 CM –12.5 CM) (DEPENDING ON RECP's TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M – 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP's MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

NOTE:
* IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.

EROSION CONTROL MATTING - CHANNEL INSTALLATION

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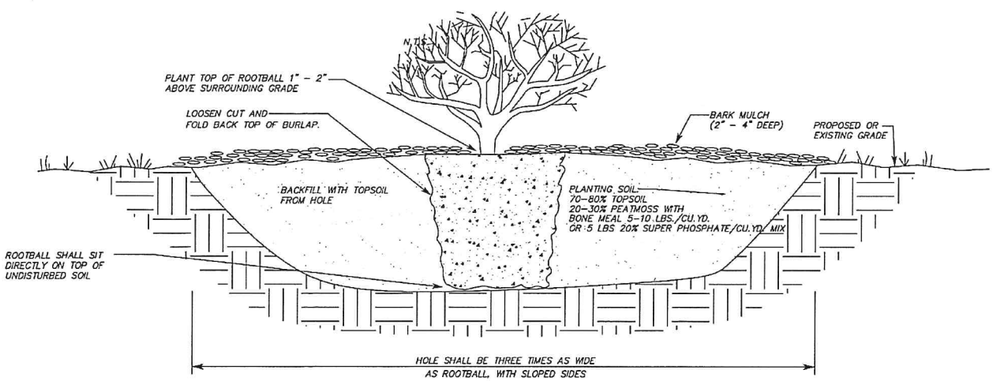
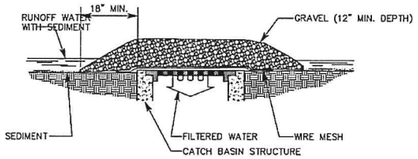


SHRUB PLANTING TYPICAL

N.T.S.



1. A WIRE MESH SHALL BE PLACED OVER THE DROP INLET OR CURB OPENING SO THAT THE ENTIRE OPENING AND A MINIMUM OF 12 INCHES AROUND THE OPENING ARE COVERED BY THE MESH. THE MESH MAY BE ORDINARY HARDWARE CLOTH OR WIRE MESH WITH OPENINGS UP TO 1/4 INCH.
2. THE WIRE MESH SHALL BE COVERED WITH CLEAN COARSE AGGREGATE SUCH AS CRUSHED STONE FOR A MINIMUM DEPTH OF 12 INCHES. CRUSHED STONE SHALL BE BEDDING STONE FOR SEWERS (ASTM STONE SIZE NO. 67). SEE SPECIFICATIONS.
3. THE COARSE AGGREGATE SHALL EXTEND AT LEAST 18 INCHES BEYOND ALL SIDES OF THE CATCH BASIN/DRAIN OPENING.
4. THIS SEDIMENTATION CONTROL SHALL BE UTILIZED AT ALL CATCH BASINS THAT WILL RECEIVE RUNOFF FROM DISTURBED AREAS.
5. *GEOTEXTILE BAG PRODUCTS DESIGNED FOR EROSION CONTROL AT CATCHBASINS ARE ACCEPTABLE ALTERNATIVES PROVIDED THEY ARE INSTALLED AND MAINTAINED PER MANUFACTURERS RECOMMENDATIONS.*
6. *SILT FENCING PROPERLY INSTALLED AND MAINTAIN AROUND CATCH BASINS IN GRASS AREAS IS AN ACCEPTABLE ALTERNATIVE.*

SEDIMENTATION CONTROL AT CATCH BASIN

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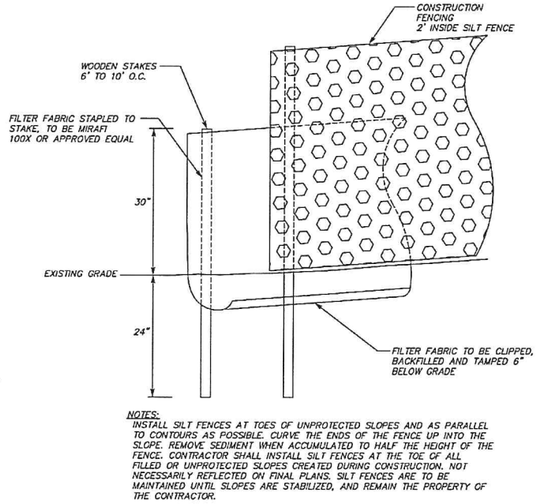
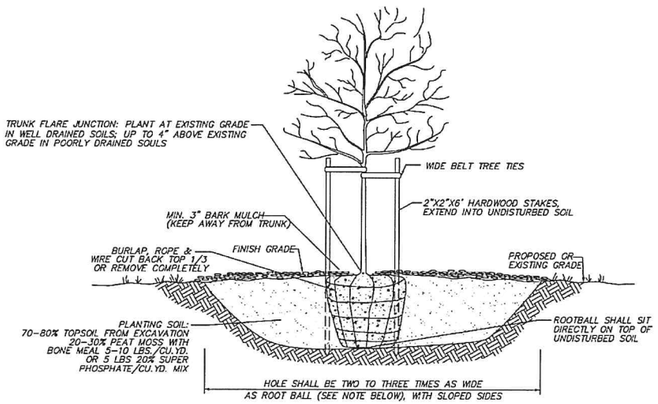


NOTES:
INSTALL SILT FENCES AT TOES OF UNPROTECTED SLOPES AND AS PARALLEL TO CONTOURS AS POSSIBLE. CURVE THE ENDS OF THE FENCE UP INTO THE SLOPE. REMOVE SEDIMENT WHEN ACCUMULATED TO HALF THE HEIGHT OF THE FENCE. CONTRACTOR SHALL INSTALL SILT FENCES AT THE TOE OF ALL FILLED OR UNPROTECTED SLOPES CREATED DURING CONSTRUCTION. NOT NECESSARILY REFLECTED ON FINAL PLANS. SILT FENCES ARE TO BE MAINTAINED UNTIL SLOPES ARE STABILIZED, AND REMAIN THE PROPERTY OF THE CONTRACTOR.

SILT/CONSTRUCTION FENCE EROSION CONTROL TYPICAL

N.T.S.



DECIDUOUS TREE PLANTING DETAIL

N.T.S.

NOTES:
1. *PLANTING HOLE SHALL BE 3 TIMES ROOT BALL DIAMETER IN HIGHLY COMPACTED SOIL; 2 TIMES ROOT BALL DIAMETER MINIMUM IN ALL OTHERS.*
2. *STAKES AND GUY WIRE PLACEMENT SHALL NOT INTERFERE WITH PEDESTRIAN TRAFFIC.*

Landscaping Notes:
1. *Landscape architect shall be notified to inspect proposed locations of plant material and condition of plant materials when delivered to site prior to installation.*
2. *All plant material is to conform to the requirements of ANSI Z60.1 "American Standard for Nursery Stock" for quality, size, genus, species and variety shown on the planting plan.*
3. *Landscape contractor shall be responsible for identifying locations of underground utilities prior to excavation for planting.*

EROSION PREVENTION AND SEDIMENT CONTROL STABILIZATION NOTES:

1. MULCH SHALL BE APPLIED TO ALL DISTURBED AREAS AT 2 TONS PER ACRE. MULCH SHALL CONSIST OF AIR-DRIED HAY OR STRAW FREE OF SEEDS AND COARSE MATERIALS.
2. TOPSOIL PILES SHALL BE MULCHED AND RINGED WITH SILT FENCE.
3. DISTURBED SOILS TO BE STABLED AS FOLLOWS:

CHANNEL SLOPE	LINING
1% TO 5%	NORTH AMERICAN GREEN S150
> 5%	STONE RIP RAP
SIDE SLOPES	**LINING**
<3:1	MULCH
>=3:1	NORTH AMERICAN GREEN S150 OR EQUAL.
>2:1	NORTH AMERICAN GREEN SC250 OR EQUAL

4. LIME MAY BE APPLIED TO ACHIEVE SOIL PH OF 6.5 FOR AREAS TO BE SEEDED.
5. APPLY COMMERCIAL FERTILIZER AT 1.0 LBS/1,000SQ. FT OF N20, P5 AND K20, IF REQUIRED.
6. LIME AND FERTILIZER SHALL BE MIXED THOROUGHLY INTO THE SEEDBED DURING SOIL PREPARATION.
7. GRASSED CHANNELS SHALL HAVE A MIN. OF 4" OF TOPSOIL PRIOR TO SEEDING.
8. DISTURBED SOILS SHALL BE SEEDED ACCORDING TO THE FOLLOWNG TABLE:

SEEDING RATES FOR TEMPORARY STABILIZATION:			
APRIL 15 - SEPT. 15: RYEGRASS (ANNUAL OR PERENNIAL: 20 LBS/ACRE)			
SEPT. 15 - APRIL 15: WINTER RYE (120 LBS/ACRE)			
SEEDING RATES FOR FINAL STABILIZATION:			
CHOOSE FROM:	VARIETY	LBS./ACRE	LBS./1000 SQ. FT.
BIRDSFOOT TREFOIL	EMPIRE/PARDEE	5*	0.1
OR			
COMMON WHITE CLOVER	COMMON	8	0.2
PLUS			
TALL FESCUE	KY-31/REBEL	10	0.25
PLUS			
REDTOP	COMMON	2	0.05
OR			
RYEGRASS (PERENNIAL)	PENNFINE/LINN	5	0.1

* - MIX 2.5 LBS. EACH OF EMPIRE AND PARDEE OR 2.5 LBS. OR BIRDSFOOT AND 2.5 LBS. WHITE CLOVER PER ACRE.

LIMIT-OF-DISTURBANCE CORDON CONSTRUCTION SPECIFICATIONS

1. LIMIT OF DISTURBANCE CORDON SHALL BE 3-FOOT HIGH ORANGE "CONSTRUCTION" SAFETY FENCE OR APPROVED EQUIVALENT, AND SHALL BE LOCATED AS SHOWN ON THE APPLICABLE PHASE PLAN. INSTALLATION OF PERMANENT SECURITY FENCING IS ALSO ACCEPTABLE.
2. SAID FENCE SHALL BE SUPPORTED BY STEEL "U" OR "T" TYPE POSTS PLACED AT MAXIMUM 16-FOOT INTERVALS.
3. FENCE SHALL BE WIRE OR "ZIP" TIED TO THE SUPPORT POSTS.
4. THE FENCE SHALL BE MAINTAINED IN A WORKMAN LIKE MANNER, AND SHALL REMAIN IN PLACE UNTIL FINAL SITE STABILIZATION IS ACHIEVED.

EROSION PREVENTION AND SEDIMENT CONTROL CONSTRUCTION NOTES:

1. NEW LOT OWNERS/CONTRACTORS MUST COMPLY WITH THE EROSION PREVENTION AND SEDIMENT CONTROL STANDARDS OF THE CITY OF BURLINGTON.
2. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED.

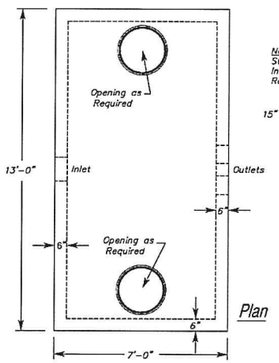
- STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN THE NEXT 24 HOURS AND THERE IS NO PRECIPITATION FORECAST WITHIN THE NEXT 24 HOURS.
- STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION (I.E. NO OUTLET) WITH A DEPTH OF 2 FEET OR GREATER (E.G. HOUSE FOUNDATION EXCAVATION, UTILITY TRENCHES)

PRECIPITATION EVENT CAUSING RUNOFF TO LEAVE CONSTRUCTION SITE, AND REPLACED OR REPAIRED AS NECESSARIES.

ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES MUST BE IMPLEMENTED DURING THE WINTER CONSTRUCTION SEASON IF EARTH DISTURBANCE IS PLANNED DURING THIS TIME (OCTOBER 15TH TO APRIL 15TH). CONTRACTOR/LANDOWNER SHALL READ AND UNDERSTAND THE FOLLOWING ITEMS:

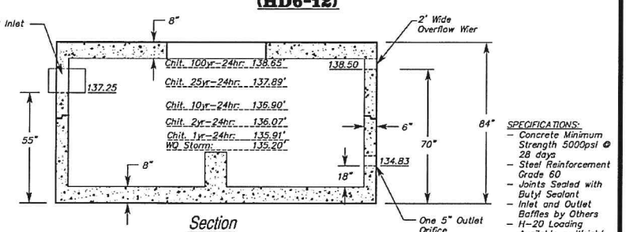
1. NON-VEGETATIVE PROTECTION MUST BE INSTALLED AFTER SEPTEMBER 15TH TO BARE SOILS INCLUDING EROSION CONTROL BLANKETS AND/OR HEAVY MULCH LAYER.
2. APPLY A MINIMUM OF 3 INCHES OF MULCH WITH AN 80-90% GROUND COVER. MULCH SHALL BE TRACKED OR STABILIZED WITH NETTING IN OPEN AREAS VULNERABLE TO WIND.
3. PROVIDE ENLARGED ACCESS POINTS TO THE SITE, STABLED TO PROVIDE FOR SNOW STOCKPILING.
4. LIMITS OF DISTURBANCE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
5. CLEARED SNOW SHALL BE STOCKPILED DOWNSLOPE OF ALL AREAS OF DISTURBANCE AND OUT OF STORMWATER TREATMENT STRUCTURES.
6. A MINIMUM 25 FOOT BUFFER SHALL BE MAINTAINED ON PERIMETER CONTROLS SUCH AS SILT FENCE.
7. IN AREAS OF DISTURBANCE THAT DRAIN TO A WATERBODY WITHIN 100 FEET, TWO ROWS OF SILT FENCE MUST EE INSTALLED ALONG THE CONTOUR.
8. DRAINAGE STRUCTURES MUST BE KEPT FREE AND CLEAR OF SNOW AND ICE DAMS.
9. SILT FENCE AND OTHER PRACTICES MUST BE INSTALLED AHEAD OF FROZEN GROUND.
10. DISTURBED SOILS MUST BE STABILIZED AT THE END OF EACH WORK DAY, UNLESS NO PRECIPITATION IS FORECAST WITHIN 24 HOURS AND WORK WILL RESUME WITHIN 24 HOURS IN THE SAME DISTURBED AREA. IN AREAS THAT COLLECT AND RETAIN RUNOFF SUCH AS HOUSE FOUNDATIONS AND UTILITY TRENCHES DAILY STABILIZATION IS NOT REQUIRED.
11. PRIOR TO STABILIZATION SNOW AND ICE SHALL BE REMOVED TO LESS THAN 1 INCH THICKNESS.
12. USE STONE TO STABILIZE AREAS SUCH AS THE PERIMETER OF BUILDINGS UNDER CONSTRUCTION OR WHERE CONSTRUCTION VEHICULAR TRAFFIC IS ANTICIPATED.

Q-in / Q-out Of Reducer Tank		
Storm	Q-in	Q-out
WQ Storm	0.27 c.f.s.	0.26 c.f.s.
Chit. 1yr-24hr	0.69 c.f.s.	0.61 c.f.s.
Chit. 2yr-24hr	0.76 c.f.s.	0.67 c.f.s.
Chit. 10yr-24hr	1.07 c.f.s.	0.90 c.f.s.
Chit. 25yr-24hr	1.38 c.f.s.	1.11 c.f.s.
Chit. 100yr-24hr	1.75 c.f.s.	1.53 c.f.s.



Note:
Struts for Structural Integrity may be Required on Larger Sizes

PRECAST FLOW-REDUCER TANK HEAVY DUTY 2500 GALLON (HD6-12)



SPECIFICATIONS:
- *Concrete Minimum Strength 5000psi @ 28 days*
- *Steel Reinforcement Grade 60*
- *Joints Sealed with Butyl Sealant*
- *Inlet and Outlet Baffles by Others*
- *H-20 Loading Available – Weight 33,400 lb*

ARCHITECT

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www.jrmadesignstudio.com

JRMA DESIGN STUDIO LLP
175 SUMMIT CIRCLE
SHELBURNE VERMONT

CLIENT

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DEVELOPMENT

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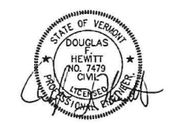


Issue	Date	Issue	Date

Project

EROSION CONTROL AND LANDSCAPINGDETAILS

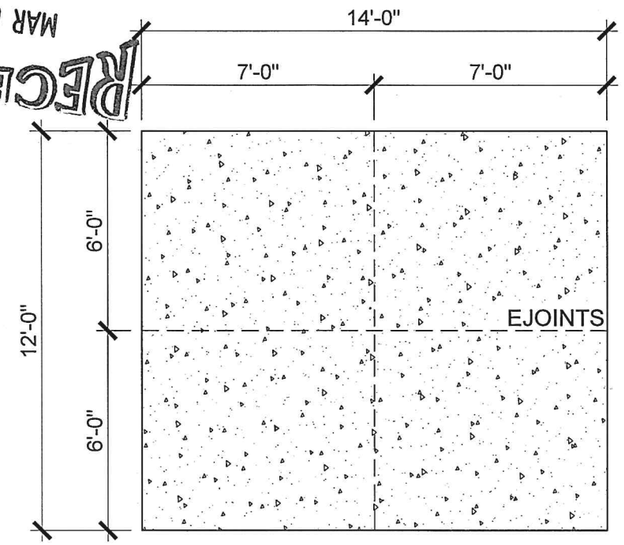
Drawing Title

Project No. 8163 Drawn By BEG Date 2/10/15 Scale N.T.S.

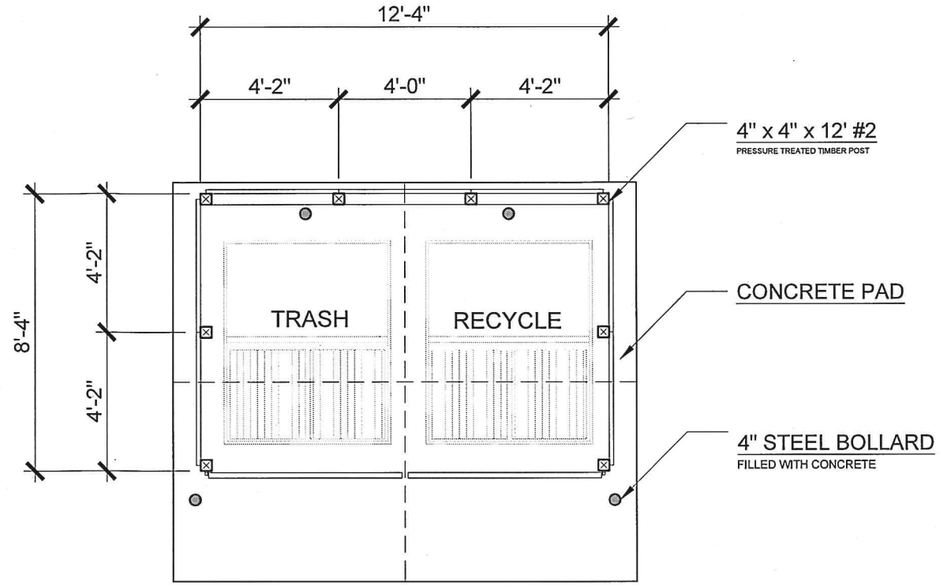
Floor(s)

Drawing No.

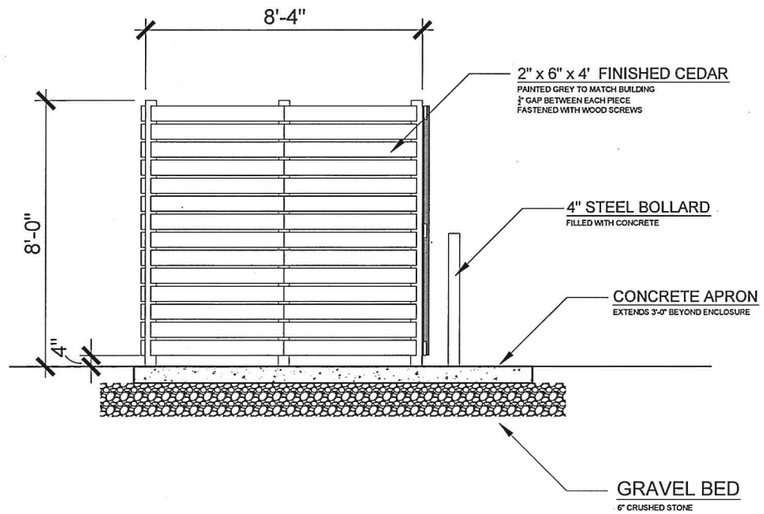
D2



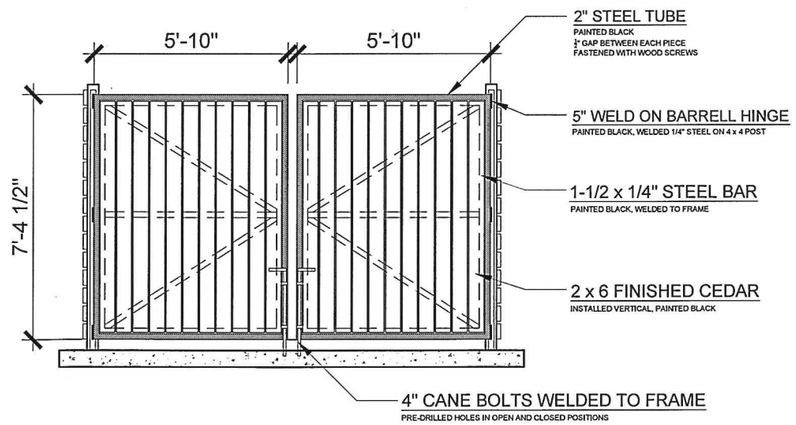
01 | L-4 | CONCRETE PAD | PLAN VIEW | SCALE 1/2" = 1'-0"



02 | L-4 | ENCLOSURE PLAN | PLAN VIEW | SCALE 1/2" = 1'-0"



03 | L-4 | TRASH ENCLOSURE DETAILS | PLAN VIEW | SCALE $\frac{3}{16}$" = 1'-0"



ARCHITECT
JRMA design studio
architecture - master planning - interiors
www.jrmadesignstudio.com
JRMA DESIGN STUDIO LLP
175 SUMMIT CIRCLE
SHELBURNE VERMONT

CLIENT
PINE & FLYNN
DEVELOPMENT

LOCATION
316 FLYNN AVE (CORNER OF PINE & FLYNN)
BURLINGTON, VERMONT

OWNER
G & C PROPERTIES
BURLINGTON, VERMONT
TEL: 802 343 6789

CONTRACTOR
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99 SWIFT STREET
So.BURLINGTON, VERMONT
Contact : Mark Sammut

CIVIL ENGINEER
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South Burlington, VT 04503
802.318.1060

MECHANICAL ENGINEERING
Carlson Mechanical, Inc.
Paul A. Carlson
802-862-3809 ext'n 12
802-862-6245 Fax

STAMP

Issue	Date	Issue	Date
ISSUED FOR BID	09-25		

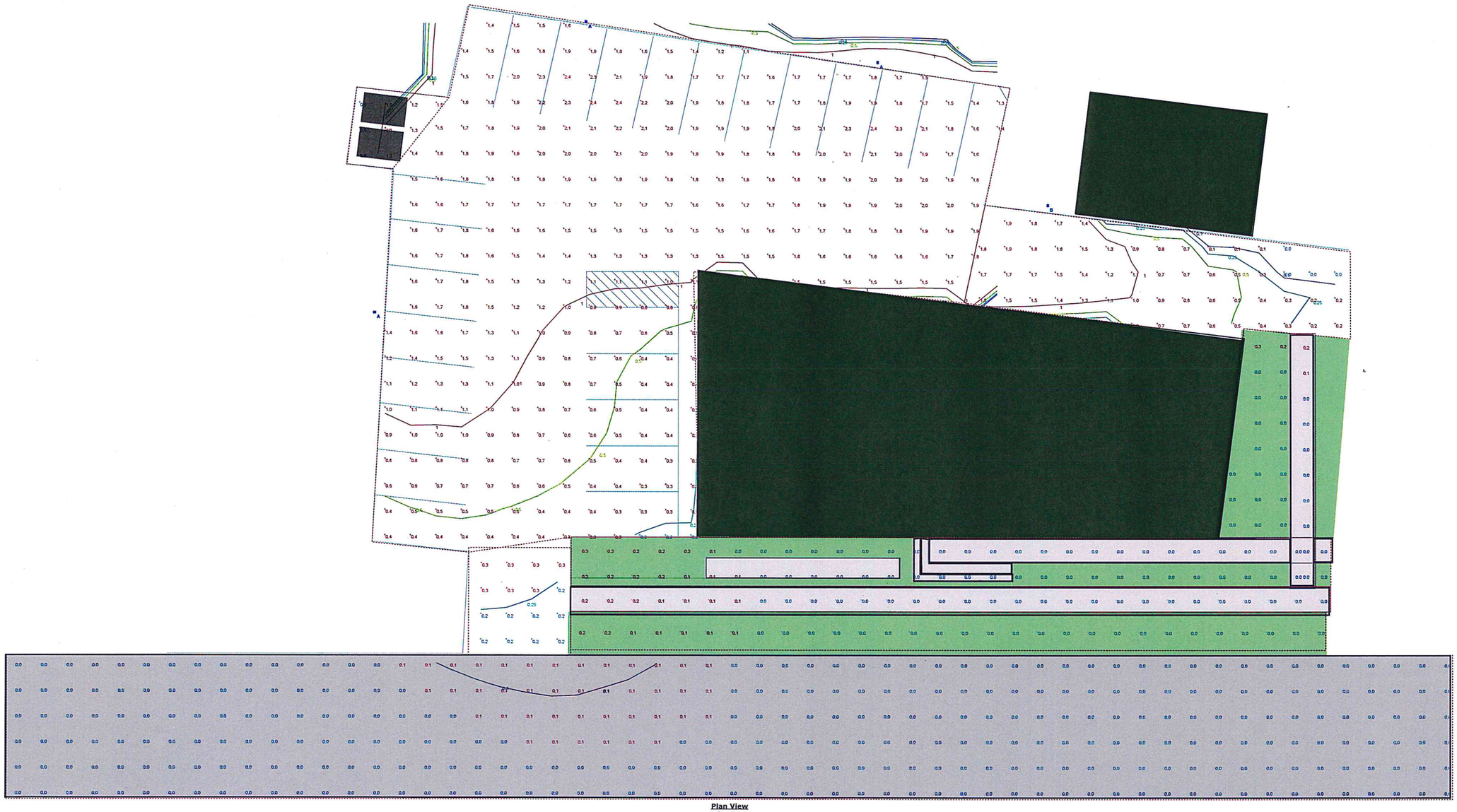
Project PINE & FLYNN

Drawing Title: TRASH ENCLOSURE DETAILS

Project No. 2011-03 Drawn By MFA

Floor(s) - N.A-

Drawing No. L-4



Plan View
Scale - 1" = 10'

Luminaire Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	3	Lithonia Lighting	DSX0 LED 40C 530 50K T4M MVOLT HS	DSX0 LED WITH (2) 20 LED LIGHT ENGINE, TYPE T4M OPTIC, 5000K, @ 530mA WITH HOUSE SIDE SHIELD	LED	1	DSX0_LED_40C_530_50K_T4M_MVOLT_HS.ies	5426.219	1	68
	B	1	Lithonia Lighting	DSX0 LED 20C 530 30K T2M MVOLT	DSX0 LED WITH (1) 20 LED LIGHT ENGINE, TYPE T2M OPTIC, 3000K, @ 530mA	LED	1	DSX0_LED_20C_530_30K_T2M_MVOLT.ies	2901.443	1	35

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Driveway Flynn Street	+	0.9 fc	1.9 fc	0.0 fc	N/A	N/A	0.5:1
Driveway Pine Street	+	0.2 fc	0.3 fc	0.2 fc	1.5:1	1.0:1	0.7:1
Dumpster	+	1.0 fc	1.5 fc	0.5 fc	3.0:1	2.0:1	0.7:1
Entry	+	0.0 fc	0.3 fc	0.0 fc	N/A	N/A	0.0:1
Front Lawn	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A	0.0:1
Parking Lot	+	1.4 fc	2.4 fc	0.2 fc	12.0:1	7.0:1	0.6:1
Pine Street	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A	0.0:1
Side Lawn	+	0.0 fc	0.3 fc	0.0 fc	N/A	N/A	0.0:1
Sidewalk	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A	0.0:1
Sidewalk #2	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A	0.0:1

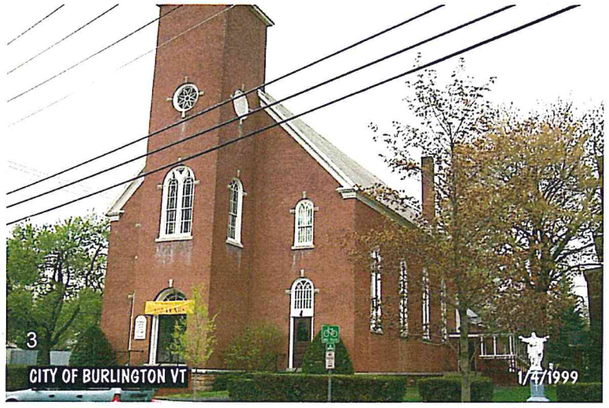
VISUAL

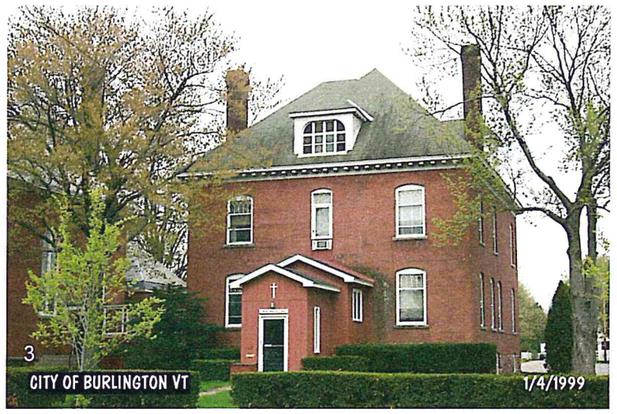
Pine & Flynn

Designer AmyRiley
Date 3/4/2015
Scale Not to Scale
Drawing No.

Summary

1. EXISTING DELI (PINE ST. DELI)
2. CHAMPLAIN SCHOOL
3. ST. ANTHONY'S CHURCH & OFFICE
4. HOWARD CENTER

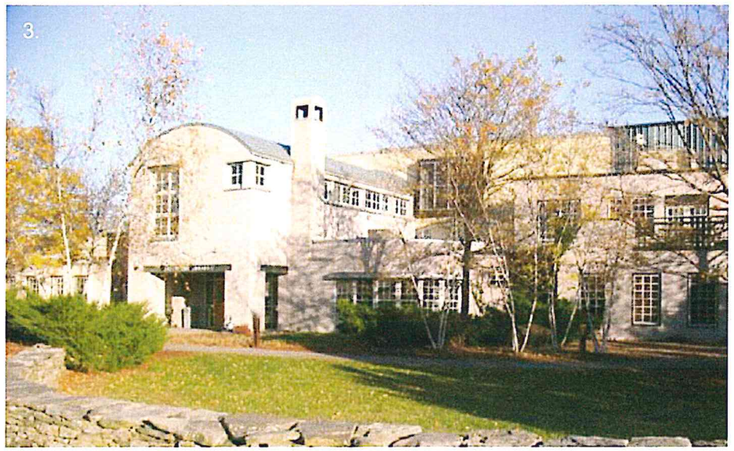




Existing Context

EXISTING DESIGN PRECEDENT

1. MALTEX BUILDING (PINE ST.) *AIA AWARD RECIPIENT**
2. BURLINGTON ELECTRIC (PINE ST.)
3. BURTON SNOWBOARDS (INDUSTRIAL DR.)
4. BURLINGTON PUBLIC WORKS (PINE ST & LAKESIDE)
5. CHAMPLAIN COLLEGE (LAKESIDE)
6. FLYNN AVE. CO-OP (FLYNN AVE)



NOTABLE DESIGN ELEMENTS

1. Use of Metal & Glass
2. Flat or Low Pitch Roof
3. Use of Masonry (Brick)
4. Integration of Landscape Elements
5. Large (over 20,000 S.F +/-) Buildings where the height is at or over 35'-0"

5.

DESIGN OBJECTIVES

1. DESIGN A RELATIONSHIP BETWEEN THE SIDEWALK AND THE STREET

The Streetscape along Flynn Ave is characterized by the mature tree canopy that is consistent along most of Flynn Ave to the north and south sides all the way to its terminus at Oakledge Park. We see a typical sidewalk width of 5' – 0"

The Pine Street Streetscape, towards the South End, is characterized by mainly larger buildings with little vegitation that protects the pedestrian from the street. Fewer plantings and minimal setbacks to commercial spaces

The ability to wrap the landscape into the design will remain a high priority. Tree plantings along Pine Street & Flynn Ave should protect the building and pedestrians from weather and provide shade during summer seasons.

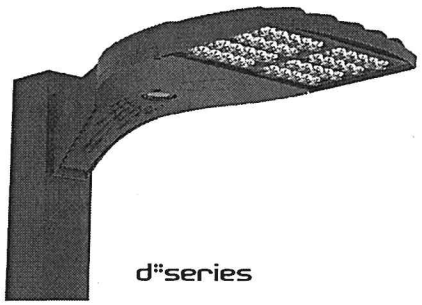
2. CREATE A VISUALY INTERESTING ELEVATION

The South End of Burlington, has been, and continues to be the location and heart of the Burlington Arts District. With the success of First Friday, and the annual Art Hop, the ability to support these events through visually interesting architecture become a main design goal. Moreover, Professional Design Firms, Engineering, Computer Science, Web-Site Design and Marketing firms all call the South End of Burlington Home. The Design must remain sensitive to the existing residential program yet also continue to strengthen the creative nature of the South End. A major component to this is how the West & South Elevation are treated along with the Material Selection of the Building.

3. SUPPORT A VARIETY OF MIXED-USE

The South End is a notable community that is truly mixed use. It location near the Burlington Bike Path, Schools, Cafes, Shopping Centers and major transportation routes requires the building to be designed with multiple programs to meet the needs of the community. Any other approach would fail to recognize its strategic position and miss a valuable opportunity for smart growth as listed in the Comprehensive Development Plan for Burlington.

Also, the Burlington Planning Commission supported a change of zoning for this property and others in the hopes of providing greater Mixed-Use potential to a valuable corner in Burlington Vermont.



D-Series Size 0
LED Area Luminaire

Hit the Tab key or mouse over the page to see all interactive elements.

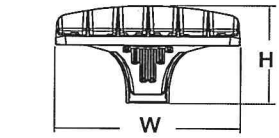
Introduction

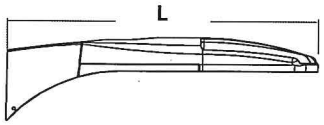
The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 65% and expected service life of over 100,000 hours.

Specifications

EPA:	0.8 ft² (.07 m²)
Length:	26" (66.0 cm)
Width:	13" (33.0 cm)
Height:	7" (17.8 cm)
Weight (max):	16 lbs (7.25 kg)





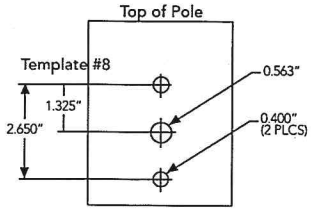
Ordering Information

EXAMPLE: DSX0 LED 40C 1000 40K T3M MVOLT SPA DDBXD

DSX0 LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting	Control options	Other options	Finish (required)
DSX0 LED	**Forward optics** 20C 20 LEDs (one engine) 40C 40 LEDs (two engines) **Rotated optics**[1] 30C 30 LEDs (one engine)	530 530 mA 700 700 mA 1000 1000 mA (1 A)[2]	30K 3000 K 80 CRI min.) 40K 4000 K (70 CRI min.) 50K 5000 K (70 CRI) AMBPC Amber phosphor converted[3]	T1S Type I short T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short T5S Type V short T5M Type V medium T5W Type V wide	MVOLT[4] 120[4] 208[4] 240[4] 277[4] 347[5] 480[5]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor[6] RPUMBA Round pole universal mounting adaptor[6] **Shipped separately**[7] KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)	**Shipped installed** PER NEMA twist-lock receptacle only (no controls)[8] DMG 0-10V dimming driver (no controls)[9] DCR Dimmable and controllable via ROAM® (no controls)[10] PIR Motion sensor, 8-15' mounting height[11] PIRH Motion sensor, 15-30' mounting height[11] BL30 Bi-level switched dimming, 30%[12] BL50 Bi-level switched dimming, 50%[12]	**Shipped installed** HS House-side shield[13] SF Single fuse (120, 277, 347V)[14] DF Double fuse (208, 240, 480V)[14] L90 Left rotated optics[1] R90 Right rotated optics[1] DDL Diffused drop lens[13]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Drilling



DSX0 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	**DM29AS**	2 at 90° *
DM28AS	2 at 180°	**DM39AS**	3 at 90° *
DM49AS	4 at 90° *	**DM32AS**	3 at 120° **

Example: SSA 20 4C **DM19AS** DDBXD

Visit Lithonia Lighting's POLES CENTRAL to see our wide selection of poles, accessories and educational tools.

*Round pole top must be 3.25" O.D. minimum.
**For round pole mounting (RPA) only.

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[15]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[15]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[15]
SCU	Shorting cap[15]
DSX0HS 20C U	House-side shield for 20 LED unit[13]
DSX0HS 30C U	House-side shield for 30 LED unit[13]
DSX0HS 40C U	House-side shield for 40 LED unit[13]
DSX0DDL U	Diffused drop lens (polycarbonate)[13]
PUMBA DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish)
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish)[7]

For more control options, visit DTL and ROAM online.

Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

NOTES

1. 30 LEDs (30C option) and rotated options (L90 or R90) only available together.
2. 1000mA is not available with AMBPC.
3. AMBPC only available with 530mA or 700mA.
4. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options).
5. Not available with single-board, 530 mA product (20C 530 or 30C 530). Not available with DCR, BL30, or BL50.
6. Available as a separate combination accessory: PUMBA (finish) U; 1.5 G vibration load rating per ANCI C136.31.
7. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
8. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories.
9. DMG option for 347v or 480v requires 1000mA.
10. Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Not available with 347 or 480V. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roamservices.net. N/A BL30, BL50, PIR, or PIRH.
11. PIR specifies the SensorSwitch SBGR-10-ODP control; PIRH specifies the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with DCR.
12. Requires an additional switched circuit. Dimming driver standard. MVOLT only. Not available with DCR.
13. Also available as a separate accessory; see Accessories information. HS and DDL are not available together.
14. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
15. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Controls.

LITHONIA LIGHTING
One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	DSX0 LED 20C 1000			
	1	0.97	0.94	0.90
	DSX0 LED 40C 1000			
	1	0.94	0.90	0.84
	DSX0 LED 40C 700			
	1	0.99	0.98	0.96

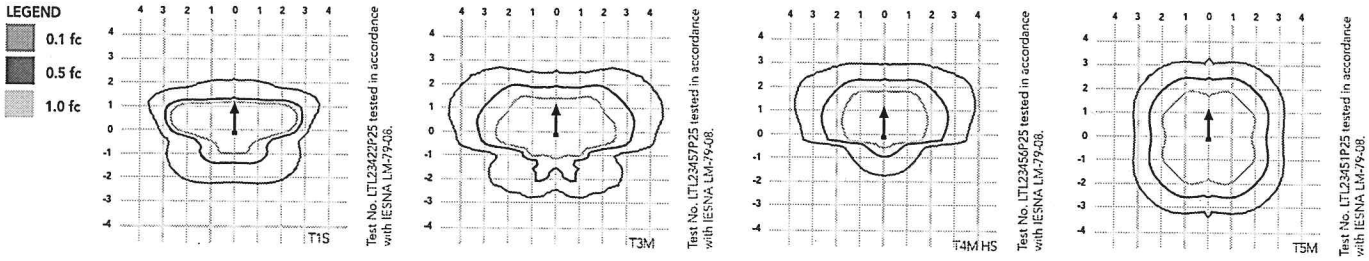
Electrical Load

Number of LEDs	Drive Current (mA)	System Watts	Current (A) 120	208	240	277	347	480
20C	530	35	0.34	0.22	0.21	0.20	--	--
	700	45	0.47	0.28	0.24	0.22	0.18	0.14
	1000	72	0.76	0.45	0.39	0.36	0.36	0.26
30C	530	52	0.51	0.31	0.28	0.25	--	--
	700	70	0.72	0.43	0.37	0.34	0.25	0.19
	1000	104	1.11	0.64	0.56	0.49	0.47	0.34
40C	530	68	0.71	0.41	0.36	0.33	0.25	0.19
	700	91	0.94	0.55	0.48	0.42	0.33	0.24
	1000	138	1.45	0.84	0.73	0.64	0.69	0.50

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area homepage.

Isofootcandle plots for the DSX0 LED 40C 1000 40K. Distances are in units of mounting height (20').



FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (0.8 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 4000 K (70 minimum CRI) or optional 3000 K (80 minimum CRI) or 5000 K (70 CRI) configurations. The D-Series Size 0 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L96/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV or 6kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 0 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 0 utilizes the AERIS™ series pole drilling pattern. Optional terminal block, tool-less entry, and NEMA photocontrol receptacle are also available.

LISTINGS

UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY

Five-year limited warranty. Full warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.